CME Article
Syringe Exchange

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Learning Objectives

I. To recognize the role of syringe exchange in preventing HIV transmission.
II. To describe the three principles of harm reduction in their application to syringe exchange.
III. To describe how to use syringe exchange as a point of access to addiction services and health care.

Injection drug use is at the core of New Jersey's HIV epidemic. According to the New Jersey Department of Health and Human Services (NJDHSS), there are over twenty-eight thousand injection drug users (IDUs) in need of substance abuse treatment, yet, in 2002, just slightly over nine thousand were treated. More than half of New Jersey's HIV infections are related to injection drug use.[1]

Transmission of HIV and other blood-borne pathogens through the sharing of syringes can be prevented. This can be accomplished in a number of ways: syringe-exchange programs (SEPs), deregulation of the sale of syringes, and increasing access to drug treatment programs for addicted persons.

Syringe exchange is the practice of giving out sterile syringes in exchange for used ones. These programs can be a gateway to drug treatment and health care services.

Both the deregulation of the sale of syringes and syringe exchange increase the number of clean or unused syringes in the community, and, having more syringes available prevents addicts from needing to share them. Unfortunately, New Jersey law prohibits syringe exchange and the sale of syringes without a prescription.

According to the Centers for Disease Control and Prevention (CDC), using sterile needles and syringes only once is the most effective way to limit HIV transmission.[2]

A History

The first syringe-exchange program was established in Amsterdam, the Netherlands, in 1984, by a drug user's advocacy group. The goal was to prevent a hepatitis B epidemic when it was learned that an inner-city pharmacist planned to discontinue selling syringes to injection drug users. In the United States, Jon Parker distributed injection drug equipment publicly in New Haven, and Boston in 1986. The first comprehensive syringe-exchange program was established in Tacoma, Washington, in 1988.[3] By 2000 there were 154 needle-exchange programs (NEP) in 106 cities and 35 states across the United States.[4]

Syringe-exchange programs in the United States were started by individuals, and they were often acts of civil disobedience and operated underground. As a result of the attention these programs received and of the growing recognition of the public health ramifications, many of these programs are now part of established organizations and some are supported by public funds.

Syringe prescription laws have their roots in the late nineteenth and early twentieth centuries. They were an effort to inhibit the abuse of opiates, such

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as morphine. The strategic intent of drug-paraphernalia, needle-prescription, and pharmacy-practice laws and regulations was to make it difficult for IDUs to acquire syringes. These laws and regulations have worked. There are six states, of which New Jersey is one, whose laws regulating syringe purchase and possession continue to hinder syringe access.

The majority of today's drug-paraphernalia laws were enacted in the 1970s and 1980s to stem the growth of the head-shop industry. Such a legislative effort was motivated by the desire to counter the glamorizing and encouraging messages of drug use conveyed by the open possession, sale, manufacture, delivery, and advertisement of drug paraphernalia.[4]

Despite the findings of the majority of the studies that demonstrate that syringe exchange is a critical prevention tool, opposition to syringe exchange persists. A principle objection is the fear that the establishment of syringe-exchange programs will encourage drug use and send the wrong message to youth. Other concerns include an increase in crime and in the number of discarded dirty syringes in the community.

Research has shown, with rare exception, that IDUs who participate in syringe-exchange programs also decrease their behaviors that can transmit blood-borne infections.[4] The concern that syringe exchange would send the wrong message to youth, an objection voiced by former Governor Christine Todd Whitman, was addressed by a study which "found no relationship between knowledge of syringe-exchange programs and inclination to use drugs."[4] When comparing data that measured the use of injectable drugs, before and after the opening of needle-exchange programs and between cities with NEPs and without them, no significant trends were found.[5]

As to the concern about improper disposal of syringes, a small number of studies have looked at this issue and found that the number of needles seen discarded in the street does not increase, and may actually decrease after the opening of a needle-exchange program.[6] The follow-up study, which looked at the quantity and geographic distribution of discarded syringes in Baltimore over a two-year period, reinforced the findings of the earlier studies.[6] Finally, the issue of increased criminal activity in the vicinity of syringe-exchange programs has not been substantiated, as "no such increases have been reported."[4]

The Research

The National Institutes of Health Consensus Panel on HIV Prevention supports syringe exchange. "An impressive body of evidence suggests powerful effects from needle exchange programs. . . . Can the opposition to needle-exchange programs in the United States be justified on scientific grounds? Our answer is a simple and emphatic no. Studies show reduction in risk behavior as high as 80%, with estimates of a 30% or greater reduction of HIV in IDUs."[7]

A recent review of the literature[8] analyzed all forty-two published studies examining the impact of syringe exchange. Twenty-eight of the studies concluded that syringe-exchange programs reduce transmission of HIV among injection drug users. Of the remaining fourteen studies, including the controversial Montreal and Vancouver studies, twelve concluded that the program had either both positive and negative effects or no effect. Only two found that syringe-exchange programs increase HIV risk. It is important to note that the fourteen studies that concluded that there was either no effect or mixed results, all looked at syringe-exchange programs in communities in which drug users could also purchase low-cost syringes at pharmacies. In these communities, the programs may appear less effective than in communities in which the program is the sole source of clean syringes.[8]

The Montreal and Vancouver data has been misinterpreted. The studies were not designed to assess the efficacy of syringe exchange. A study to assess efficacy would have to factor in variables such as drug using behaviors, NEP location, types of drugs injected, and other high-risk activities.

The most recent University of California–Davis study[8] seeks to clarify these mixed results. It has

been found that when IDUs have a choice between syringe-exchange programs and legally obtaining syringes from pharmacies, the higher-risk users tend to gravitate toward syringe-exchange programs, while the lower-risk users tended to purchase their syringes from pharmacies. As a result, the syringe-exchange programs appear less effective when their users are compared to all IDUs or to those who purchase their syringes at pharmacies. Previous studies did not take into account the vulnerability of high-risk injection drug users who are more likely to engage in other high-risk behaviors that put them at risk for HIV.[9]

The authors of the UC–Davis study identified variables that were significantly associated with high-risk behavior among IDUs who take advantage of SEPs. These include their frequency of injecting, their use of speedballs (injecting a combination of heroin and cocaine), and sex activity. As reported in the CDC New Updates, "the findings of the study support the bulk of the literature evaluating syringe exchange: the protective effect associated with such programs is considerable. Furthermore, the finding that the protective effect increases six-fold against HIV risk for IDUs without other sources of syringes emphasizes the critical nature of such programs and suggests that syringe-exchange programs can gain great benefit from focusing on getting sterile syringes to these IDUs."[9]

Harm Reduction and Behavior Change

Syringe-exchange programs are part of a larger public health movement known as harm reduction. Harm reduction is an effective strategy for helping people change behaviors that put their health at risk.

Harm reduction is a philosophical approach that facilitates behavior change toward better health outcomes; in particular, it is a practical strategy for minimizing the injurious health consequences of injection drug use behavior. There are three guiding principles that direct the application of harm reduction strategies:

1. Injection drug users may not be able or willing to change their behavior;

2. Public health interventions must work with people in all stages of behavior change; and

3. Patients set goals for themselves, and the health- or social-service provider's role is supportive, not directive.

This approach directly supports what Dr. Jeff Kelly of the Medical College of Wisconsin's CAIR program has identified as the seven key elements that have been demonstrated to be effective in successfully changing behavior.[10] They are:

1. Knowledge of risk;
2. Personalization of risk;
3. Belief in self-efficacy and efficacy of behavior change for health;
4. Motivation to change behavior;
5. Safer sex and drug use skills;
6. Cognitive problem solving skills; and
7. Internal and community support for maintaining the behavior changes.

Syringe exchange as a harm-reduction strategy engages injection drug users in a way that enables them to learn about and personalize the health risks of their drug use behavior. It offers them behavioral options and teaches skills that increase their sense of efficacy in reducing health risks and HIV infection. In addition, it provides an opportunity to begin a non-directive, client-centered dialogue in which patients can set personal goals for themselves, seek and receive support, and gain access to health and social services.

A Gateway to Care and Treatment

The goal of public health is to encourage people to obtain care and to steer them away from harm. Likewise, at the core of efforts to prevent HIV transmission, it is crucial to attract people at risk into care for their general health and to address their addictions. Therefore, in addition to exchanging syringes, many SEPs provide additional services. Those services help injection drug users reduce their risk of acquiring and transmitting HIV. They can also help them enter the health care system. Many sites offer counseling and testing, referrals for drug treatment, medical care and social services.

Many distribute condoms, to prevent sexual transmission of HIV and STDs, and screening for other infectious diseases. For many addicts, the SEP is the first opportunity they have had to talk to a health care provider, and it may be a bridge to treatment and medical care.

Successful programs, those that are able to retain participants and successfully refer them to other services, practice harm reduction. They are available to prospective participants regardless of the intensity of the participant's drug using behavior or the willingness of the participant to seek treatment. What this means is that the staff are prepared to meet participants where they are; whether they are actively using drugs and sharing syringes or not. Programs need to provide appropriate staff training to ensure that they embrace the harm-reduction philosophy and have an opportunity to understand their individual biases and discomforts.

Programs use a variety of methods to seek out drug users and make it easy for them to gain access to the programs. These may include the use of a van parked at different sites in the community at the same time each day or week or having a storefront operation with hours that correspond to activity in the community. Some programs use volunteers who have ties to the community or are peers in recovery and, thus, better able to attract participants. Other programs may employ health care workers who are able to provide counseling and testing and other direct health care services. The goals are to establish a relationship with each participant, to begin a dialogue about the participant's risk for contracting and transmitting HIV, and to discuss other health concerns, including addiction. Consistency is the key to success. Participants need to know that they can trust the program and depend on the staff for support, information, and referrals.

Conclusion

Research demonstrates that drug treatment and syringe-exchange programs help to reduce the transmission of blood borne pathogens by promoting drug abstinence or safer injection practices among IDUs.[1] Access to sterile needles and syringes is strategically critical to reducing HIV transmission. Statistical findings consistently conclude that needle-exchange programs do not promote drug use while they do reduce the incidence of HIV. In some data, these programs have been shown to be successful in moving people into drug treatment programs and in aiding their recovery from drug use.[5]

The fact that we continue to debate the scientific evidence demonstrates the need for better education about addiction and the devastating impact of HIV on drug users, their sexual partners, and their children. Lack of support for these programs and for increased access to syringes in general, is based on misconceptions and ignorance about how syringe exchange programs operate and how effective they can be in slowing the spread of disease as well as in providing access to care for those at risk or already infected.

New Jersey law must be changed before we can implement syringe exchange programs. Now is the time to begin a conversation in our state about the spread of HIV and other blood-borne pathogens through injection drug use. Health care workers and the public must be educated about existing prevention strategies and given an opportunity to ask questions and engage in a dialogue about the impact of drug addiction and its resulting infectious diseases. *NJM*

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"Syringe Exchange"

1. Syringe exchange programs as a harm reduction strategy:
   A. Acknowledge that IDUs may not be able to or willing to abstain from injection drug use
   B. Provide an opportunity for IDUs to learn about the health risks for HIV
   C. Create a graduated drug-use recovery program guided by goals set by health care providers
   D. A and B

2. SEPs provide a point of access to addiction services and health care by:
   A. Engaging and creating relationship with SEP participants
   B. Providing referrals and follow up to other health and social services
   C. Offering on the spot counseling and testing, condoms, and screening for STDs
   D. All of the above

3. HIV is prevented through SEPs by:
   A. Encouraging IDUs to enter drug treatment programs
   B. Rapid screening of participants for HIV
   C. Providing referrals and follow up to health care services
   D. Making more syringes available to reduce sharing among IDUs

4. In providing services within a harm-reduction model:
   A. Staff identify participants ready to make behavior changes to reduce potential harm from their drug use behavior
   B. Clients assess personal risk and direct their goal setting
   C. Staff assess a client's risk of contracting HIV and set realistic behavior-change goals for the client
   D. Client risk behavior is supported by SEP staff

5. The role of health care workers and social service providers working with active injection-drug users is to:
   A. Provide information about risk of HIV
   B. Offer clear and directive support
   C. Support informed decision making by the client
   D. A and C

Answer Sheet

"Syringe Exchange"

Darken the correct answers

1. [A] [B] [C] [D] 2. [A] [B] [C] [D] 3. [A] [B] [C] [D]
4. [A] [B] [C] [D] 5. [A] [B] [C] [D]

Time spent reading this article and completing the learning assessment and evaluation: _____HOURS _____MINUTES

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